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SYSTEMATIC NOVEL APPROACH TOWARDS SUSTAINABLE INDUSTRY 4.0 USING CUTTING EDGE TECHNOLOGIES

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ABSTRACT

The quality of human life has been enriched and of great significance since the industrial revolution. Previously industry was mainly driven by skilled workforces but with the passage of time, innovative technologies and scientific tools have partially substituted their role and dependence which in turn proves momentous. The industry has a notable contribution in socio-economic growth and proves beneficial in nation-building, thus modernization and transformation under a sustainable ecosystem are extremely obligatory. Cutting edge engineering technologies has enabled Industry 4.0 to evolve as a new paradigm with all necessary resources which implicitly triggers the technical ability and hidden potential. Studies have shown a deficiency of synchronization among appropriate information technologies tools and policy framework in Industry 4.0 architecture which results in serious consequences. In this paper, a systematic novel approach has been made to suitably harness potential IT tools and explore a new dimension of applications under safe parameters. The outline of the work mostly emphasis Methodologies, optimization techniques, case studies, explicit research scope, challenges and forthcoming opportunities with a specific outcome.

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